VOLUME 124, NUMBERS 1-2

(Published 14 October 2002)

CONTENTS

A. Irizawa, A. Yamasaki, M. Okazaki, S. Kasai,A. Sekiyama, S. Imada, S. Suga, E. Kulatov,H. Ohta and T. Nanba	1	Bulk-sensitive photoemission of Mn ₅ Si ₃
G.L.F. Fraga, P. Pureur and D.E. Brandão	7	Spontaneous magnetoimpedance in the Heusler compounds Pd ₂ MnSn and Pd ₂ MnSb near the Curie temperature
M Park, K. S. Huh, J.M. Myoung, J.M. Lee, J.Y. Chang, K.I. Lee, S.H. Han and W.Y. Lee	11	Room temperature ferromagnetic (Ga,Mn)N epitaxial films with low Mn concentration grown by plasma-enhanced molecular beam epitaxy
O.Yu. Gorbenko, I.E. Graboy, V.A. Amelichev, A.A. Bosak, A.R. Kaul, B. Güttler, V.L. Svetchnikov and H.W. Zandbergen	15	The structure and properties of Mn_3O_4 thin films grown by $MOCVD$
Š. Pick, I. Turek and H. Dreyssé	21	On magnetically dead layers at Nb-Co interface
P.P. Singh	25	Hole-doped, high-temperature superconductors Li_xBC , Na_xBC and C_x : a coherent-potential-based prediction
L. Ammor, D. Barros, A. Ruyter, R. De Sousa, B. Pignon and J.C. Soret	29	Effect of inclined columnar defects on flux lines pinning in Pb-substituted Bi ₂ Sr ₂ Ca ₁ Cu ₂ O ₈ single crystals
L. Sun, Y. Zhang, J. Zhang, C. Yan, C. Liao and Y. Lu	35	Fabrication of size controllable YVO ₄ nanoparticles via micro- emulsion-mediated synthetic process
B. Zawilski, T. Klein and J. Marcus	39	Vogel-Fulcher like dielectric response and variable range hopping behaviour in molybdenum bronze
J. Zhang, L. Sun, C. Liao and C. Yan	45	Size control and photoluminescence enhancement of CdS nano- particles prepared via reverse micelle method
M. Yasukawa, A. Kadota, M. Maruta, H. Tanaka, T. Kono and H. Kawakita	49	Thermoelectric properties of the solid solutions $BaPb_{1-x}Sb_xO_3$ ($x = 0-0.4$)
C. Caizer	53	Thermal dependence of the saturation magnetisation of Mn _{0.6} Fe _{0.4} Fe ₂ O ₄ nanoparticles in a ferrofluid
S. Soltanian, X.L. Wang, A.H. Li, E.W. Collings, M.D. Sumption, E. Lee, H.K. Liu and S.X. Dou	59	Fabrication and critical current density in 16-filament stainless steel/Fe/MgB ₂ square wire
D. Cociorva, W. G. Aulbur and J.W. Wilkins	63	Quasiparticle calculations of band offsets at AlN-GaN interfaces
W.S. Abdel Halim and A.S. Shalabi	67	The stability of peroxide ion O_2^{2-} at (110), (210) and (001) surfaces of MgO, CaO and SrO periodic ab initio calculations
	1	Keywords
	III	Instructions to Authors

VOLUME 124, NUMBER 3

(Published 18 October 2002)

CONTENTS

G. Xu, R. Funahashi, M. Shikano, Q. Pu and B. Liu

73 High temperature transport properties of Ca_{3-x}Na_xCo₄O₉ system

J. Androulakis, N. Katsarakis and J. Giapintzakis Realization of La₂MnVO₆: search for half-metallic antiferromagnetism? H.-D. Zhou, G. Li, F. Liu, S.-J. Feng, Y. Liu, 83 Raman spectrum and ESR of Pr_{0.5}Ca_{0.4}Sr_{0.1}MnO₃ X.-G. Li and J. Fang A. Golnik, W. Mac, K. Pakuła, R. Stępniewski, Low field excitonic Zeeman splittings in gallium nitride 89 C. Testelin and J.A. Gaj 93 Pauli-like magnetic susceptibility in emeraldine base polyani-P.K. Kahol Structural phase stability and superconductivity of LaN G. Vaitheeswaran, V. Kanchana and 97 M. Rajagopalan 103 The crossover between lasing and polariton condensation in M.H. Szymanska and P.B. Littlewood optical microcavities 109 Theory of exciton-polariton in GaN thin films M.S. Vasconcelos, E.L. Albuquerque, G.A. Farias and V.N. Freire 113 Size effect and evidence of a size-driven phase transition in Y.L. Du, M.S. Zhang, Q. Chen, Z.R. Yuan, Bi₄Ti₃O₁₂ nanocrystals Z. Yin and Q.A. Zhang I Keywords

VOLUME 124, NUMBER 4

Instructions to Authors

Ш

(Published 25 October 2002)

CONTENTS

A.E. Karakozov, E.G. Maksimov and O.V. Dolgov	119	Electromagnetic response of superconductors and optical sum rule
M. Ellouze, W. Boujelben, A. Cheikhrouhou, H. Fuess and R. Madar	125	Vacancy effects on the crystallographic and magnetic properties in lacunar $Pr_{0.7}Ba_{0.3-x}MnO_3$ oxides
R.S. de Biasi and M.L.N. Grillo	131	Influence of gadolinium concentration on the ESR spectrum of Gd^{3+} in CaO
S. Kirihara, M. Wada Takeda, K. Sakoda and Y. Miyamoto	135	Control of microwave emission from electromagnetic crystals by lattice modifications
E. Balthes, P. Wyder and D. Schweitzer	141	Sawtooth chemical potential oscillations in the strongly 2D organic metal κ -(BEDT-TTF) ₂ I ₃ at high Landau level filling factors
J.W. Jang, D.K. Lee, C.E. Lee, T.J. Lee, C.J. Lee and S.J. Noh	147	Growth-temperature induced metal-insulator transition in bamboo-shaped multiwalled carbon nanotubes
S. Raju, K. Sivasubramanian and E. Mohandas	151	An integrated thermodynamic approach towards correlating thermal and elastic properties: development of some simple scaling relations
K. Saulig-Wenger, D. Cornu, F. Chassagneux,G. Ferro, T. Epicier and P. Miele	157	Direct synthesis of β -SiC and h-BN coated β -SiC nanowires

Author Index Keywords

Instructions to Authors

Ш

VOLUME 124, NUMBERS 5-6

(Published 4 November 2002)

CONTENTS

G. H. Lee, T. Kawazoe and M. Ohtsu	163	Difference in optical bandgap between zinc-blende and wurtzite ZnO structure formed on sapphire (0001) substrate
M. P. Zwolak, R. Zallen and M. Di Ventra	167	Percolation study of defect tolerance in missing-crossbar networks
Z. L. Liu, H. M. Yue, Y. Wang, K. L. Yao and Q. Liu	171	The VCNR properties of nano-structured ceria thin films
L. Resnick	177	On the non-polarization and quasi-polarization spectroscopy of anisotropic media
H. J. Im, Y. S. Kwon and M. H. Jung	181	Electrical and magnetic properties of the new Kondo-lattice compound Ce ₃ Pd ₄ Ge ₄
K. W. Lee, C. E. Lee, J. Kim and J. K. Kang	185	Phase transitions and molecular motions in a model biomembrane (C ₁₂ H ₂₅ NH ₃) ₂ SnCl ₆
K. Miyauchi, J. Qiu, M. Shojiya, Y. Kawamoto,N. Kitamura, K. Fukumi, Y. Katayama andY. Nishihata	189	In situ EXAFS study on GeS ₂ glass under high-pressure
P. K. Kahol and N. J. Pinto	195	Electron paramagnetic resonance investigations of electrospun polyaniline fibers
Ł. Gondek, A. Szytuła, N. Stüsser and A. Zygmunt	199	Magnetic structure of Tb ₂ CuGe ₃
J. L. Cheng and M. W. Wu	203	Excimers and their entanglement in double quantum dots#
R. Kling, A. Köder, W. Schoch, S. Frank,M. Oettinger, W. Limmer, R. Sauer and A. Waag	207	Influence of nitrogen incorporation on structural, electronic and magnetic properties of $Ga_{1-x}Mn_xAs$
S. Kondo, A. Masaki, T. Saito and H. Asada	211	Fundamental optical absorption of CsPbI ₃ and Cs ₄ PbI ₆
Y. Wang and Z. Zhang	215	Competition of two terms in exchange energy $(A = A_1 + A_2)$ for magnetic materials
N. Kuwata, J. Kawamura and Y. Nakamura	221	New organic-inorganic hybrid superionic conductor glasses consisting of silver iodide and alkylbis-trimethylammonium diiodides
S. Zilberman and B. N. J. Persson	227	Erratum to "Adhesion between elastic bodies with rough surfaces" [Sol. Stat. Comm. 123 (2002) 173-177]
	I	Keywords
	III	Instructions to Authors

VOLUME 124, NUMBER 7

(Published 6 November 2002)

CONTENTS

N. Rogado, G. Lawes, D.A. Huse, A.P. Ramirez and R.J. Cava	229	The Kagomé-staircase lattice: magnetic ordering in $Ni_3V_2O_8$ and $Co_3V_2O_8$
C.Z. Tan, H. Chen and Z.G. Liu	235	Laser beam-induced dynamic gratings in α -quartz
H. Asaoka, Y. Machida, H. Yamamoto, K. Hojou, K. Saiki and A. Koma	239	Stress evolution during epitaxial growth of SrO films on hydrogen-terminated Si(111) surfaces
J. Nan, J. Wu, Y. Deng and CW. Nan	243	Thermoelectric properties of La-doped Ca-Co-O misfit cobaltites

Research Paper

T. Thonhauser, C. Ambrosch-Draxl and D. J. Singh Communications	275	Stress and pressure within the linearized-augmented plane-wave method
A. L. Pokrovsky and A. L. Efros	283	Sign of refractive index and group velocity in left-handed media
JH. Yoon	289	Correlation between the improved stability and low temperature hydrogen effusion in hydrogenated amorphous silicon films grown from hydrogen dilution of silane
P. Ravindran, R. Vidya, P. Vajeeston,A. Kjekshus, H. Fjellvåg and B. C. Hauback	293	Antiferromagnetic vs. ferromagnetic interactions and spin- glass-like behavior in ruthenates
D. Billaud and F. X. Henry	299	Structural studies of the stage III lithium-graphite intercalation compound
T. Oku and Sa. Nakajima	305	Atomic structures of surface and interface in (Hg,Tl,Pb)-based superconductors studied by high-resolution electron microscopy
A. V. Fedorov, A. V. Baranov and Y. Masumoto	311	Coherent control of the fundamental transition in a single quantum dot
	I	Author Index
	V	Keywords

VOLUME 124, NUMBER 9

Instructions to Authors

VII

(Published 18 November 2002)

CONTENTS

R. T. Pepino and G. G. Kleiman 317 A new approach to Auger and quasi-resonant processes in ion—surface collisions

Yu. B. Vasilyev, V. A. Solov'ev, B. Ya. Mel'tser, A. N. Semenov, M. V. Baidakova, S. V. Ivanov, P. S. Kop'ev, E. E. Mendez and Y. Lin	323	Control by an electric field of electron-hole separation in type- II heterostructures
A. B. Ziya, X. Wang and T. Abbas	327	Equilibrium kinetics of short-range order formation in the ternary $Au_{40}Ag_{40}Pd_{20}$ alloy
C. Benjamin, S. Bandopadhyay and A. M. Jayannavar	331	Survival of Φ 0/2 periodicity in presence of incoherence in asymmetric Aharonov–Bohm rings
B. Davoudi, M. Polini and M. P. Tosi	335	Spin-density functional approach to thermodynamic and struc- tural consistence in the charge and spin response of an electron gas
JJ. Shi	341	Exciton states and interband optical transitions in InGaN quantum dots
B. Teng, Y. Chen, H. Fu, Y. Tang, M. Tu, Y. Chen and J. Tang	347	Comparison between the nearest and the next-nearest neighbor site-spin interactions in the Ising model
A. Gordon and P. Wyder	353	On critical anomalies at diamagnetic phase transitions
S. Jitpaisanwattana and I. M. Tang	359	van Hove scenario for a high $T_{\rm c}$ superconductor having a (s + d)-wave symmetry order parameter
	I	Keywords
	III	Instructions to Authors

VOLUME 124, NUMBERS 10-11

(Published 22 November 2002)

Research Paper

363	An ultrasound emitter based on assisted tunneling
373	Giant magnetoelectric effects in layered composites of nickel zinc ferrite and lead zirconate titanate
379	Disorder, frustration and lattice volume effects in YMnIn, $Th_{0.8}R_{0.2}MnAl$ (R = Sc, Lu and Y), $ThMn_{1.3}Al_{0.7}$ and $ThMnAl_{1-x}In_x$ alloys
385	High pressure Raman spectroscopic study of BaFCl
391	Structural, optical and electrical properties of the ordered vacancy compound CuIn ₃ Se ₅ thin films fabricated by flash evaporation
397	Nuclear conversion of ¹⁹⁵ AuFe into ¹⁹⁵ PtFe centers in silicon: observations by magnetic resonance
403	New low symmetry configuration of the two carbon-interstitial silicon complex in irradiated silicon
407	Oxidation-induced change in spin polarization of the antimony Mössbauer dopant on the surface of Cr ₂ O ₃ crystallites
411	Heteroepitaxial growth of single-phase zinc blende ZnS films on transparent substrates by pulsed laser deposition under H_2S atmosphere
	373 379 385 391 397 403 407

VIII

Vol. 124, Nos 1-12 Volume Index

D.P. Yu, JL. Bubendorff, J.F. Zhou, Y. Leprince-Wang and M. Troyon	417	Localized cathodoluminescence investigation on single Ga_2O_3 nanoribbon/nanowire
A. Bharathi, S.J. Balaselvi, M. Premila, T.N. Sairam, G.L.N. Reddy, C.S. Sundar and Y. Hariharan	423	Synthesis and search for superconductivity in LiBC
H. Ehrenberg, I. Dincer, A. Elmali, Y. Elerman and H. Fuess	429	Magnetic and crystal structure correlations in PrMn _{1.5} Co _{0.5} Ge ₂ : a synchrotron diffraction study
H.Y. Xu, D.L. Yin, Z. Qi, F.R. Wang and C.Y. Li	433	Hall effect in the mixed state of superconducting MgB ₂
J. Hu, H. Qin and J. Chen	437	Room temperature magnetoresistance in $La_{0.67}Sr_{0.33}Mn_{1-x}Cr_xO_3$
	1	Kaywords

I Keywords

III Instructions to Authors

VOLUME 124, NUMBER 12

(Published 26 November 2002)

B. Tanatar	441	Foreword
W.A. Harrison	443	Why tight-binding theory?
T. Yildirim	449	Lattice dynamics of solid cubane within the quasi-harmonic approximation
M.D. Watson and C. Y. Fong	457	A semi-empirical approach to electron correlations based on a non-local formalism
I.P. Batra	463	From uncertainty to certainty in quantum conductance of nanowires
H. Özgür Özer, M. Atabak and A. Oral	469	Ultra-small oscillation amplitude nc-AFM/STM imaging, force and dissipation spectroscopy of $Si(100)(2 \times 1)$
Z. Gedik	473	Quantum entanglement and order parameter in a paired finite Fermi system
	III	Volume Index
	IX	Author Index
	XIII	Keywords
	XV	Instructions to Authors

